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Office of the Chief, Economic Research

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Current	Support	Memorandum

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BRANCH

All-Branch Project

ANALYSTS

SUBJECT

Impact of Flood Conditions on Certain Sectors of Communist

China's Economy

Communist China is currently beset with widespread flood conditions.

Unusually heavy and continuous rainfall has resulted in record flood crests for the Yangtze and Hwai Rivers, with flood conditions reported in areas extending from Tibet in the west to the Sungari, Liao and Yalu Rivers of the northeast.

As yet there is no evidence that present flood conditions are worse than in 1931, when 34,000 square miles were seriously inundated and 25 to 50 million people were displaced. Water conservancy projects erected since 1951 have apparently mitigated the severity of the flood. 1/ However, any further heavy rains or dike breaks would probably result in a rapid extension of the present flooded area.

While some useful information is beginning to come through on the subject, it is too early to describe the situation accurately or to estimate the impact of the floods upon the economy. However, pending further research and analysis, it seems timely to speculate now on the possible short and long term effects these floods may have on Communist China's posture and intentions.

The comments in Summary (a) which follow are based upon the sector analyses contained in the Appendix.

## COMMENTS:

#### a) In Summary:

It is estimated that two hundred million man-days have already been consumed in flood control and reclamation work since June. This heavy consumption of labor will probably continue until the floods subside enough to complete

# NSA review completed

drainage and dike-repair work. This emergency labor demand, combined with the current "increase production" campaign in agriculture, is expected to keep China's huge agrarian labor force fully employed over the next few months.

Some delays in and discontinuities of rapid electric communications at a time when such service is needed most will likely slow down control, direction, organization, and effectiveness of flood control and restoration as well as the general economic readjustments and reorientations imposed by the emergency.

Breaks in several rail lines in the flood area have apparently isolated several important industrial and agricultural complexes from the rest of China. These breaks will impose difficulties in the movement of flood control and restoration materials and manpower. Diversion and rerouting of non-flood rail traffic, such as imports from the Orbit now being directed to Whampoa, will cause congestion in some areas of the transportation network which in turn will probably affect distribution and marketing of materials in other parts of Communist China.

Rehabilitation requirements will likely be far-reaching in manpower, money, materials, and machinery, not only for breaks in dikes but also for replacement of residential, industrial, and other buildings.

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Shifts in the balance and composition of China's agricultural exports are possible. It is interesting to note that as of 9 July,

no drop in the shipments of agricultural commodities to the USSR, the principal customer for China's food exports. If further investigation reveals that Chimese policy provides for a continuation of food exports to the USSR, this would offer a valuable propaganda weapon to the West.

Mobilization of numerous national and local agencies to cope with the floods reveals some measure of dynamism in Communist China's organizational and managerial capabilities. Centuries of experience with recurrent flood situations probably qualifies Communist China to handle the present situation with effectiveness and some degree of efficiency.

All this, though based upon spotty information, suggests that the present flood situation is sufficiently disruptive to the sectors of the economy discussed and through them to the whole economy as not to encourage Communist China to depend upon the economy logistically to support, for the moment, any heavy warlike ventures such as that threatened against Formosa.

b) The following appendix presents additional details in terms of services sector of the economy.

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## 1. Population

The extremely limited information on population distribution in China makes any estimate of the population affected by the floods highly speculative.

Past estimates are of questionable reliability but may serve as rough indices of present conditions. In 1931, it was estimated that 25-50 million people were directly affected by the floods. 2/ In 1950, floods were estimated to have displaced 13 million people in the Hwai Ho area alone. 2/ Considering the extent of the present flooded area, a very rough estimate of population affected would be between 15 and 25 million people.

The growth potential of China's population will not be seriously affected by the floods unless famine and epidemic conditions develop as an aftermath of any severe crop losses or disrupted transportation.

# 2. Labor Force

Lt seems likely that well over 2.5 million civilian laborers have been engaged in flood prevention work since the middle of July, with at least 1.7 million working along the Yangtze alone. 4/ Recent announcements mention 200,000 laborers working on the dikes around Wuhan, 5/800,000 in various localities along the lower reaches of the Yangtze River, 6/ and 270,000 in Hunan Province, 7/ while 400,000 have been reported to be strengthening the dikes in Liaoning Province. 8/ The only estimate available for the Hwai Ho mentions 400,000 civilian laborers organized in Suhsien and Luan administrative areas of Anhwei for flood prevention work. 9/

This emergency labor force, recruited from farm families living near the flooded areas, would not ordinarily be a severe drain on China's over-abundant agrarian population. Under present flood conditions, however, it is expected that the agricultural labor force will be under considerable pressure to repair and strengthen dikes and also to drain inundated land and re-sow autumn crops. Peak seasons for China's agricultural labor force are spring and autumn, coinciding with the sowing and the harvesting of the rice crop. It can be expected, therefore, that there will be heavy demands on agricultural labor over the next two months. "Increase-production" campaigns have already been started in both stricken and non-stricken areas.

## 3. Telecommunications

Although the basins of the Hwai and Yangtze rivers contain heavier concentrations of wireline telecommunications facilities than most other areas

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<b>&lt;</b> 1	of China, there is as yet no evidence of extensive damage to these facilities.	
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L	the Ministry of Posts and Telecommunications, in conjunc-	
	tion with the Ministry of Water Conservancy, is sending its personnel to set up	2
	flood warning radio stations along all large rivers, and that some of these stations	
	are already operating.	
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It is believed that the flood waters will cause local damage to the wireline installations at river crossings, in the areas of dike breakage, and along routes of railroad washouts, and that disruption of service is likely to occur on the main north-south trunk lines in the flood area. It is further believed that extensive damage requiring costly material to restore will not occur unless the floods increase in severity, and that service can fairly easily be re-established after the flood water recedes. The largest cost of restoration of wirelines is believed to be manpower requirements to reset poles and restring the wires. Estimates as to the effect of the flood on current and future plans on communications construction will have to be postponed until the severity of the flood damage can be better evaluated.

## 4. Transportation

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On the basis of flood reports received so far, it appears that sections of the Canton-Hankow line are cut south of Changsha. While no specific information is available it is probable that washouts have occurred in the vicinity of Hengyang, which would isolate Kwangsi Province and Indo-China from the main railway network. The Chekiang-Kiangsi line connecting Shanghai with Chuchow is believed cut in several places, especially at bridge points crossing swollen tributaries of the Yangtze. Rail lines between Shanghai and Suchow are believed to be cut or washed cut along extensive stretches of track. On the Hankow-Chenghsien line

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it is believed that the line has been interrupted at bridge crossings of the Hwai Ho tributaries. \*

While the flood damage in central China may eventually turn out to be less extensive than that in 1931, the present disaster has apparently resulted in isolating the Wu-Han complex, Shanghai, Nanking and Nanch ang from railroad service with the rest of China for an indefinite period. 12/ (Failure thus far to expropriate local shipping at Wu-hu 13/ may indicate that the isolation of these cities is either not too serious or that it is not expected to continue for a lengthy period of time.)

The long range effect of the flood situation on the Chinese railroads is impossible to assess in detail at this time. The disruption of traffic resulting from rail cuts and the expedition of supplies to stricken areas will probably cause a freight car shortage and concurrent dislocation of the movement of goods in the Northeast industrial area. Subsequent rehabilitation of devastated sections of roadbed might entail a considerable diversion of construction funds from current railway projects. Moreover, with the diversion of Orbit shipping from North China ports to Whampoa, as a result of the Nationalist blockade, 14/1 it is probable that congestion in the Canton area will be severe. Temporary denial of these goods to consuming industries north of the Yangtze and the diversion of construction funds will, in all probability, have a significant effect on the regime's scheduled economic progrem.

Shifts in the balance and composition of China's agricultural exports are possible. It is interesting to note that as of 9 July,

no drop in the shipments of agricultural commodities to the USSR, the principal customer for China's food exports. In effect, with net crop losses tentatively estimated at 9 million metric tons and food exports to the USSR currently running at more than 2 million metric tons annually, the diversion of such traffic to the devastated areas might substantially alleviate the threat of a serious famine. If further investigation reveals that Chinese policy provides for a continuation

of food exports to the USSR, this would offer a valuable propaganda weapon to the West. On the other hand, if significant quantities of foodstuffs are diverted from export markets, this would have a significant effect on China's ability to pay for

imports of much needed industrial equipment for the implementation of her internal

Estimates based on study of map overlays of flood damage prepared by

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economic program.

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## 5. Construction

The extent of flooding indicates that extensive damage has probably been caused to much of the flood control works constructed in 1951 and 1952 involving the movement and placing of about 1,700,000,000 cubic meters of earthwork. The impact of the flood damage will be far-reaching in its rehabilitation requirements for manpower, money, materials and machinery. The practice of utilizing vast numbers of local peasants with little equipment for such work as dike and dam construction will, of necessity, delay the planting of crops to replace those destroyed by the floods. The diversion of money and materials from the investment projects scheduled for 1954 and 1955 to rehabilitation work may greatly impede the progress towards industrialization as envisaged by China's economic planners.

## 6. International Trade and Finance

An estimate of the effects on the trade, especially exports, of Communist China at this time can only be a matter of conjecture. If the damage to crops and food stocks is extensive, it would affect the availability of these products for export. In turn, unless measures could be taken which would lower the consumption level further, a resultant decline in exports could set in. The effect on exports, therefore, would depend primarily upon the extent of damage, upon the decisions of the Chinese government and upon the ability to carry out these decisions, if it were decided to maintain planned exports.

Decision might be made by the Chinese Communists to lower the level of exports and/or to increase imports, especially consumer goods items. Imported goods might be obtained as relief aid or on a reimbursable basis. It seems probable that the USSR and some of the European satellites will offer flood relief assistance to China. A Burmese offer of relief was turned down on August 1, as not being needed at the present stage. 15/ The extent of the flood damage, if great, could lead the Chinese to accept this and other aid offers from the West.\*

## 7. Organizations and Management

Long-term flood control projects in China have been carried out by the Ministry of Water Conservancy. Present emergency conditions, however, have called for cooperative effort by a number of different agencies. As examples,

<sup>\*</sup> Hungary, Czechoslovakia and East Germany recently have accepted Western relief offers. 16/ China could follow these examples.

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it is noted that the People's Revolutionary Military Council has reportedly supplied planes for airlifting relief supplies 17/ and the Ministries of Food and Agriculture have been called upon to furnish seed for replanting activities. 18/ Local cooperative organizations have been required to furnish gunny sacks and other materials, and the various State-trading companies have been directed to expedite the shipment of commodities "to stabilize market prices" in the stricken areas. 19/ In addition the mobilization of labor under local authorities for emergency flood control work, as indicated above, has been extensive. Of course, the use of mass corvees for flood control and other projects has been practised from early antiquity in China and involves techniques with which the Communists are thoroughly familiar. The allocation of labor to the various activities needed and the continued operation of industrial facilities in the Wu-Han area must, however, have posed somewhat of a problem to the administrators of the emergency programs.

Emergency flood control measures involve more than the organization of large numbers of men and amounts of materiel. Basic policy decisions have also been necessary. It is believed, for example, the extraordinary measures which have been taken to minimize damage to the industrial area at Wu-Han have been based on a policy decision which calculated the resultant greater damage to agricultural areas down stream. The widespread character of the flooding and the threats of floods have undoubtedly involved some centralized decisions on allocation of relief supplies and use of limited transport facilities.

Similarly the rehabilitation of the stricken areas will pose major problems of setting priorities. The character of China's planned economy is such that relatively minor dislocations in any one sector of the economy may cause a chain reaction in a number of other sectors. Therefore, even if the crop loss is not as extensive as was caused by the floods in 1931, the efforts to rehabilitate crop land, repair transportation and communication facilities and reconstruct the flood control projects can cause major disruptions in economic plans. It is concluded that the flood situation and its aftermath will provide a major test of the administrative and managerial skill of the Chinese Communist leadership. Next 1 Page(s) In Document Exempt